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**FACSIMILE TRANSMITTAL SHEET**

DATE: 15 November 2004

TO: Examiner Jeffrey Pwu  
Tech Center 3628

FAX NO: 703-872-9306

FROM: Vincent M. DeLuca

RE: Serial No. 09/480,991  
Filed: January 11, 2000  
Inventor: David C. CUSHING  
Our Ref: 2566-105

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Number of Pages Including This Transmittal Sheet: 21

MESSAGE, IF ANY:

Brief in support of Appeal filed herewith.

<b>FEE TRANSMITTAL for FY 2005 (Small Entity)</b>		Complete if Known	
		Application Number	09/480,991
		Filing Date	January 11, 2000
		First Named Inventor	David C. CUSHING
		Examiner Name	J. C. Pwu
		Group Art Unit	3628
Total Amount of Payment	(\$ 170.00)	Attorney Docket Number	2566-105

**METHOD OF PAYMENT (check one)**

1. ☒ The Commissioner is hereby authorized to charge additional fees and credit any overpayment to Deposit Account Number 02-2135 in the name of Rothwell, Figg, Ernst & Manbeck

☒ Charge any Additional Fee Required Under 37 CFR 1.16 and 1.17

☒ Applicant claims small entity status.

2. ☐ Payment Enclosed:

☐ Check

☐ Credit Card

**FEE CALCULATION****1. FILING FEE**

Fee Code	Fee \$	Fee Description	Fee Paid
2001	385	Utility filing fee	[ ]
2002	170	Design Filing Fee	[ ]
2003	265	Plant Filing Fee	[ ]
2004	385	Reissue Filing Fee	[ ]
2005	80	Provisional Filing Fee	[ ]

**SUBTOTAL \$**

**2. CLAIMS**

Total Claims	Extra Claims	Fee \$	Fee Paid
[ ] - 20** = [ ] x		\$ 9 = [ ]	
Claims [ ] - 3** = [ ] x		43 = [ ]	
Multiple Dependent Claims +		145 = [ ]	

\*\*or number previously paid, if greater;

**SUBTOTAL \$**

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Fee Code	Fee Paid	Fee Description	Fee Paid
2051	65	Surcharge - late filing fee or oath	[ ]
2052	25	Surcharge - late provisional filing fee or cover sheet	[ ]
1053	130	Non-English specification	[ ]
1812	2,520	For filing a request for reexamination	[ ]
1804	920	Requesting publication of SIR prior to Examiner action	[ ]
1805	1,840*	Requesting publication of SIR after Examiner action	[ ]
2251	55	Extension for reply within first month	[ ]
2252	210	Extension for reply within second month	[ ]
2253	475	Extension for reply within third month	[ ]
2254	740	Extension for reply within fourth month	[ ]
2255	1,005	Extension for reply within fifth month	[ ]
2401	170	Notice of Appeal	[ ]
2402	170	Filing a brief in support of an appeal	[170]
2403	145	Request for Oral Hearing	[ ]
1451	1,510	Petition to Institute a public use proceeding	[ ]
2452	55	Petition to revive -unavoidable	[ ]
2453	475	Petition to revive - unintentional	[ ]
2501	665	Utility issue fee (or reissue)	[ ]
2502	240	Design issue fee	[ ]
2503	320	Plant issue fee	[ ]
1460	130	Petitions to the Commissioner	[ ]
1807	50	Processing fee under 37 CFR 1.17(q)	[ ]
1806	180	Submission of Information Disclosure Statement	[ ]
8021	40	Recording each patent assignment per property (times number of properties)	[ ]
2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	[ ]
2810	385	For each additional invention to be examined (37 CFR 1.129(b))	[ ]
2801	385	Request for Continued Examination (RCE)	[ ]
1802	900	Request for expedited examination of a design application	[ ]
1504	300	Publication fee for early, voluntary, or normal publication	[ ]
1505	300	Publication fee for republication	[ ]
1455	200	Filing an application for patent term adjustment	[ ]
1456	400	Request for reinstatement of term reduced	[ ]
Other fee (specify):			[ ]

\* Reduced by Basic Filing Fee Paid

**SUBTOTAL \$ 170.00**

SUBMITTED BY				Complete (if applicable)	
NAME AND REG. NUMBER	Vincent M DeLuca, Reg. No. 32,408				
SIGNATURE	<i>Vincent M DeLuca</i>	DATE	November 15, 2004	DEPOSIT ACCOUNT	02-2135

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of ) **BEFORE THE BOARD OF PATENT**  
David C. CUSHING ) **APPEALS AND INTERFERENCES**  
Serial No. 09/480,991 ) Appeal No.:  
Filed: January 11, 2000 ) Examiner: Jeffrey C. Pwu  
For: AUTOMATED BATCH AUCTIONS) Group Art Unit: 3628  
IN CONJUNCTION WITH )  
CONTINUOUS FINANCIAL )  
MARKETS )

**BRIEF ON APPEAL**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

This is an appeal from the final rejection of claims 1-31 of the above-identified application, which claims were finally rejected in the Office action dated March 12, 2004. A Notice of Appeal was timely filed on September 13, 2004.

**REAL PARTY IN INTEREST**

The real party in interest in this case is ITG Software, Inc. of Santa Monica, California.

**RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the present appeal.

**STATUS OF THE CLAIMS**

Claims 1-31 are pending in the application and stand finally rejected. Claims 1, 10, 20, 30 and 31 constitute the independent claims on appeal. This appeal is directed to claims 1-31.

**STATUS OF AMENDMENTS**

A proposed amendment subsequent to the outstanding final Office action was filed on August 12, 2004, seeking to amend claim 20 to eliminate a typographical error. While the Advisory action dated September 23, 2004 failed to indicate whether or not this proposed amendment would be entered upon appeal, it is inferred that the amendment will be entered as it merely corrects a typographical error.

**SUMMARY OF THE CLAIMED SUBJECT MATTER**

Independent claim 1 is directed to a method for conducting a financial batch auction, wherein during an order acceptance period orders are received from a plurality of participants representing a desire to execute a trade of a certain security instrument, information regarding orders is continuously transmitted to the participants as it is received

during the order acceptance period, participants are allowed to modify previously submitted orders during the acceptance period only if the modification meets a predetermined set of conditions, an optimal price is discovered after the close of the acceptance period at which a maximum number of shares will be executed based on all orders received during the order acceptance period, and a trade of the maximum number of shares is then executed. See Fig. 2, steps 101-105 and Fig. 3, steps 200-214; page 17, line 10 to page 20, line 30.

Independent claim 10 is directed to a method of performing a batch auction of a security, wherein an order book is compiled by entering orders from participants received during an order acceptance period, modifying or cancelling orders within the order book in response to requests from participants received during the acceptance period based on information provided to the participants, an optimal price is discovered after the close of the acceptance period at which a maximum number of shares will be executed based on all orders received during the order acceptance period, and a trade of the maximum number of shares is then executed. See Fig. 2, steps 101-105 and Fig. 3, steps 200-214; page 17, line 10 to page 20, line 30, and Fig. 4 .

Independent claim 20 is directed to a computerized system for performing a batch auction of a security, including a computerized network having at least two computers in communication with each other (Figs. 4 and 5 “qualified participants” and “order book”), an order receiving program running on one or more of the computers (page 10, line 26 - page 11, line 22), an order book database located on one or more of the computers (id.); a price discovery program running on one or more of the computers, a batch auction

execution program running on one or more of the computers, and a notification program running on one or more of the computers (Figs. 4 and 5).

Independent claim 30 is directed to a method for conducting a security batch auction cycle, which is similar to the subject matter of claim 1, and wherein late requests to enter auction orders and to modify entered orders are accepted if such late requests meet first or second sets of criteria (page 18, ll. 1-24).

Independent claim 31 is directed to a method of performing an intermediated batch auction of a security, which is similar to the subject matter of claim 1, but wherein order information is provided to an intermediary during the order acceptance period, and the intermediary may place orders identifying a desire to trade an excess number of shares based on the information (see Fig. 5 and p. 29, ll. 7-26).

#### **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

This appeal presents the following issues for decision by the Board:

- 1) Whether claims 1-31 are unpatentable under 35 U.S.C. § 101 as being directed to non-statutory subject matter, and are properly rejected on that basis; and
- 2) Whether claims 1-31 are unpatentable under 35 U.S.C. § 102(e) as being "unpatentable over" (*sic, anticipated by*) U.S. Patent No. 6,421,653, and are properly rejected on that basis.

**ARGUMENT****The Rejection of Claims 1-31 Under 35 U.S.C. § 101 Is Improper**

The rejection of claims 1-31 under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter is improper and should be reversed. Initially, it is believed that the Examiner intended to indicate claims 1-19, 30 and 31 as being the subject of this ground of rejection as stated in the first Office action, inasmuch as claims 20-29 are directed to a computerized system that is undisputedly directed to statutory subject matter. In this regard, a typographical error in claim 20 as presented in the amendment filed December 16, 2003 was corrected in the Amendment After Final filed August 12, 2004. The Advisory action failed to indicate whether or not the proposed amendment would be entered upon appeal and failed to indicate whether such amendment would remove the § 101 rejection against claims 20-29. The Examiner is requested to clarify these points in any Examiner's Answer.

The Examiner states that for a claim to be statutory under 35 U.S.C. § 101, the practical application of an idea or algorithm causes a useful, concrete, tangible result, and the claim provides a limitation in the technological art that enables a useful, concrete, tangible result. According to the Examiner, claims 1-31 are not statutory "because these claims do not recite the use of technological art." First Office action at 3. As support, the final Office action cites to "MPEP Section iv 2(b)," which applicant assumes to be referring to MPEP § 2106 (IV)(B)(2)(b)(ii). However, the MPEP section relied upon does not stand for the proposition expressed in the first Office action that a claimed process which may be performed manually without the use of an electronic communication medium does not

involve the "technological arts."

As the MPEP states, "a claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. There is no requirement under United States patent law that a process must be carried out using an electronic medium as alleged by the Examiner. Neither In re Waldbaum, In re Musgrave, In re Johnston, nor In re Toma, relied on by the Examiner in the final rejection, stands for such proposition.

The term technological means "pertaining to or involving technology;" and the term technology means "the application of science, especially to industrial or commercial objectives." Clearly, the "technological arts" is not limited to use of electronic media. To the contrary, the courts have used the term "technological arts" to distinguish over the "theoretical arts" – such as manipulations of abstract ideas or performance of purely mathematical algorithms. The term "technological arts" does not distinguish processes performed on a computer from processes that may be performed manually. Consequently, even if the Examiner were correct that the steps of claims 1-19, 30 and 31 could be performed manually, they would not be non-statutory as a matter of law. Claims 1-19, 30 and 31 are directed to methods for conducting auctions of financial securities. The result of the claimed methods is that trade orders are executed, and shares of financial securities are exchanged between buyers and sellers, clearly a useful, concrete and tangible result. As such, it is of no consequence whether all, part or none of the steps of the method are carried out on a computer because the method itself produces a concrete, tangible and useful result.



See State Street Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, 1372-75 (Fed. Cir. 1998).

**The Rejection of Claims 1-31 Under 35 U.S.C. § 102 Is Improper**

The rejection of claims 1-31 under 35 U.S.C. § 102(e) as being “unpatentable over” (sic, *anticipated by*) U.S. Patent No. 6,421,653 to May is improper and should be reversed. May is directed to an internet-based trading system, which enables traders to identify bids and offers that they are eligible to trade based on a color coding scheme. The color coding system considers the credit rating of the potential counterparties to the trade, and is intended to be used with trading financial instruments for which the credit rating of parties is an important factor. See the Abstract. May explicitly states that auto-matching of orders is not performed, see col. 33, ll. 31-34, and thus the individual traders necessarily would be the entities matching orders and selecting prices, contrary to the requirements of the claimed invention.

The present invention as claimed is directed to batch auctions that can be conducted during opening and closing of continuous financial markets for a security, and additionally can be carried out throughout the trading day, which achieves a price discovery that reflects true market forces while eliminating the gaming that is prevalent in the prior art auction processes. According to the invention, participants in the batch auction are provided with current order information entered into the order book during the acceptance period, such as an indicated price and trade order imbalance. In return, participants are allowed to enter new orders and/or modify previous orders only if they satisfy a set of predetermined criteria,

as fully explained with reference to Fig. 2 of the application. Consequently, the opportunity for gaming is substantially reduced or eliminated, while allowing participants to place orders based on a fuller understanding of true market conditions. May does not teach any methodology for accepting new or modified orders during an order acceptance period, where selected information regarding orders is transmitted to auction participants during the order acceptance period. May further does not disclose any process for calculating an optimal price at which a maximum number of shares will be traded upon execution of a batch auction. May simply describes the best bid and best ask as the best price. Each bid or offer is color coded to take into consideration credit preferences, etc. May fails to disclose or suggest a method or system for conducting a batch auction of a financial security as disclosed and claimed in the present invention.

The final Office action cites to col. 43, ll. 43-67 of May as allegedly disclosing a methodology for accepting new or modified orders during an order acceptance period. However, the cited passage merely describes the operation of an auction mechanism whereby an auction price is calculated to maximize the volume traded. May does not disclose continuously sending to participants information regarding orders as they are received during an order acceptance period and allowing the participants to modify previously submitted orders only if the modification meets a predetermined set of conditions, as set forth in claim 1, and also similarly set forth in independent claims 20, 30 and 31.

**CONCLUSION**

In view of the foregoing, claims 1-31 are submitted to be directed to a new and unobvious method for conducting financial batch auctions among a plurality of participants that is not taught or suggested by the prior art, and that defines a statutory category of patentable invention. The Honorable Board is respectfully requested to reverse all grounds of rejection and to direct the passage of this application to issue.

Please charge any fee or credit any overpayment pursuant to 37 CFR 1.16 or 1.17 to Deposit Account No. 02-2135.

Respectfully submitted,

ROTHWELL, FIGG, ERNST & MANBECK, p.c.

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